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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,798	02/06/2004	Sang-Ik Cho	P4063/VIPC	8455

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EXAMINER

HUYNH, KHOA D

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No. 10/773,798	Applicant(s) CHO, SANG-IK	
	Examiner Khoa D. Huynh	Art Unit 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: the recitation "i.e. should be changed to read --having--. Appropriate correction is suggested.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite as to whether applicant intends to claim the subcombination of an apparatus for automatically opening and shutting the drain valve or the combination of an apparatus for automatically opening and shutting the drain valve and a conventional drain valve. The preamble of claim 1 only calls for an apparatus for automatically opening and shutting the drain valve. However, throughout the body of the claim, elements of the apparatus are inferentially connected to a conventional drain valve. For example, lines 5-6 of claim 1 calls for an apparatus comprising a motor and a working cam; however, in line 6, the working cam is defined as "contacting the bottom portion..." of the conventional drain valve which is the intended environment. Should applicant intend to claim to cover only the subcombination, the examiner suggests language such "adapted to be" when referring to structural connection of the subcombination to its environment. For example, line 4

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could be amended such as "a working cam adapted to be closely contacting...". On the other hand, should applicant intend the claim to cover the combination, the examiner suggests amending to preamble such as "An apparatus for automatically opening and shutting a drain valve in combination with a conventional drain valve located in a washstand...".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, as best understood and given the broadest reasonable interpretations, is rejected under 35 U.S.C. 102(b) as being anticipate by JP 10-212747.

The JP 10-212747 reference discloses an apparatus for automatically opening and shutting a drain valve in a washstand or bathtub. The washstand has a drain pipe (at 31) is connected to the bottom of the washstand and a drain outlet. The apparatus includes a deceleration motor (at 6), a working cam (at 7) adapted to contact bottom of the drain valve via an element (at 14), and a push or touch button (at 2) for turning on/off the motor. The touch button is disposed at a predetermined portion of the washstand (Fig. 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 2, as presently understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Grumelot et al. (5048556) in view of JP 10-212747.

Regarding claim 1, the Grumelot et al. reference discloses an apparatus for opening and shutting a drain valve in a drain port of a boat transom. The washstand has a drain pipe (12,18) is connected to the bottom of the drain port and a drain outlet. The apparatus includes an actuating mechanism (col. 6, lines 1-10), and a working cam (at 66) closely contacting the bottom of the drain valve (Fig. 1). All functional implications and statements of intended use have been fully considered. They, however, are deemed not to impose any structural limitation distinguishable over the Grumelot et al. apparatus which is capable of being used in a washstand as claimed.

The Grumelot et al. reference DIFFERS in that it does not specifically include a motor and a touch button as claimed. Attention, however, is directed to the JP 10-212747 reference which discloses an apparatus for automatically opening and shutting a drain valve in a washstand or bathtub. The apparatus includes a deceleration motor (at 6), a working cam (at 7), and a push or touch button (at 2) for turning on/off the motor. The touch button is disposed at a predetermined portion of the washstand (Fig. 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Grumelot et al. reference by employing a deceleration motor

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and a touch button, in view of the teaching of the JP 10-212747 reference, in order to automatically opening and shutting a drain valve.

Regarding claim 2, as schematically shown in Figure 1, the drain pipe is divided into an upper drain pipe (at 18) and a lower drain pipe (at 12), wherein the upper and lower drain pipes are combined each other. An upper spring housing (at 24) and a lower spring housing (at 46) are built in the drain pipe and combined each other with them disposed in an opposite manner. A spring (at 39) is disposed with the housings for resiliently supporting the drain valve (38) in a working direction.

Conclusion

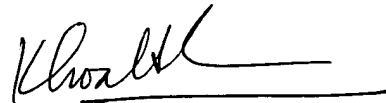
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ogasawara was cited to show a drain discharging apparatus having a cam and a spring biased discharge valve. Hendricks was cited to show a discharge valve for a toilet outlet having a cam, a touch button and a motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khoa D. Huynh whose telephone number is (571) 272-4888. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Khoa D. Huynh', with a horizontal line underneath.

Khoa D. Huynh
Patent Examiner
Art Unit 3751

HK
03/20/2005